



**American
College of
Foot and Ankle
Surgeons®**

ACFAS INTERMEDIATE LEARNING PATHWAY: Pediatrics 1 – Forefoot

Learning Objectives of this Pathway:

- Describe treatment considerations for metatarsus adductus when it presents at different ages or with other associated foot deformities.
- Describe specific considerations that help minimize complications when using callus distraction to treat brachymetatarsia.
- Describe the treatments used to surgically manage pediatric digital deformities.
- Describe the mainstay of management for common pediatric foot/ankle osteochondroses.
- Compare and contrast the evaluation and surgical management of a juvenile hallux valgus deformity from an adult hallux valgus deformity.

Day 1: Metatarsus Adductus and Brachymetatarsia

Clinical Sessions:

[Pediatrics | In Toeing: Metatarsus Adductus](#)

Surgical Techniques e-Learning:

[Common Foot & Ankle Procedures \(online format\) | Brachymetatarsia Repair with Callus Distraction](#)

Clinical Sessions:

[Forefoot Case Debates/Controversies | Metatarsus Adductus with HV: Lapidus vs Global Correction – Correction of Metatarsus Adductus with HAV](#)

Journal Articles:

- [Callus Distraction Versus Single-Stage Lengthening with Bone Graft for Treatment of Brachymetatarsia: A Systematic Review](#)
- [Cuneiform and Cuboid Wedge Osteotomies for Correction of Residual Metatarsus Adductus: A Surgical Review](#)

The ACFAS learning pathways are a tool to be used by residency directors, fellowship directors and school faculty to aid with didactic learning during the COVID-19 crisis. They are not intended to replace a curriculum, but to supplement student and resident education during this time of need.

The learning pathways are divided into basic, intermediate, and advanced categories.

Pathways have been organized into specific topics that have a variety of educational materials from the ACFAS On Demand course content. They also include journal articles with links primarily from the Journal of Foot and Ankle Surgery (JFAS).

Outside Journal Articles/Books:

- Agnew, PS (2013). Metatarsus Adductus and Allied Disorders. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (Chapter 73). Philadelphia, PA: Lippincott Williams & Wilkins.
- Agnew, PS (2020). Pediatric Metarsus Adductus. In M.L. Butterworth and J.T. Marcoux (1st Ed.), *The Pediatric Foot and Ankle: Diagnosis and Management*. (Chapter 6). Basel, Switzerland: Springer.
- Butterworth, ML., Martin, DE (2013). Brachymetatarsia. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (Chapter 72). Philadelphia, PA: Lippincott Williams & Wilkins.
- Eamsobhana P, et al. Does the parental stretching programs improve metatarsus adductus in newborns? *J Orthop Surg (Hong Kong)*. 2017;25(1). PMID 28215117.
- Furdon SA, Donlon CR. "Examination of the newborn foot: position and structural abnormalities." *Adv Neonatal Care* 2002; 2(5):248-258.
- Gore, AI, Spencer HP. "The Newborn Foot." *Am Fam Physician* 2004; 69(4): 865-72.
- Hutchinson, B. "Pediatric metatarsus adductus and scewfoot deformity." *Clin Podiatr Med Surg*
- Sankar WN, Weiss J, Skaggs DL. "Orthopedic conditions in the newborn." *J Am Acad Orthop Surg* 2009; 17:112-122.
- Sass P, Hassan G. "Lower extremity abnormalities in children." *Am Fam Physician* 2003; 68:461-8.

Day 2: Digital Deformities and Pediatric Foot/Ankle Osteochondroses

Clinical Sessions:

- [Pediatrics | Digital Deformities](#)
- [Pediatrics | Osteochondrosis](#)

Journal Articles:

[Ray Reduction of the Foot in the Treatment of Macrodactyly and Review of the Literature](#)

Outside Books:

- Downey, MS., Wilson, JM. Congenital Overlapping Fifth Toe Deformity. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (pp.332-342). Philadelphia, PA: Lippincott Williams & Wilkins.
- Filiatrault, AD (2013). Polydactyly. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (Chapter 75.1). Philadelphia, PA: Lippincott Williams & Wilkins.
- Brosky II, TA (2013). Macrodactyly. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (Chapter 75.2). Philadelphia, PA: Lippincott Williams & Wilkins.

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- Donohue, CM (2013). Ectrodactyly. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (Chapter 75.3). Philadelphia, PA: Lippincott Williams & Wilkins.
- Wagreich, CR., et al (2013). Syndactyly. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (Chapter 75.4). Philadelphia, PA: Lippincott Williams & Wilkins.
- Camasta, CA., Weinstein, RB (2005). Syndactyly and Desyndactyly. In T.J. Chang (1st Ed.), *Master Techniques in Podiatric Surgery: The Foot and Ankle* (Chapter 2). Philadelphia, PA: Lippincott Williams & Wilkins.
- Bazarov, I., Williams, ML. (2020). Digital Deformities of the Pediatric Foot. In M.L. Butterworth and J.T. Marcoux (1st Ed.), *The Pediatric Foot and Ankle: Diagnosis and Management*. (Chapter 4). Basel, Switzerland: Springer.

Day 3: Juvenile Hallux Valgus Deformity

Clinical Sessions:

[Pediatrics | HAV](#)

Surgical Techniques e-Learning:

[Common Foot & Ankle Procedures \(online format\) | Akin Osteotomy](#)

Journal Articles:

[Radiographic Measurements of Patients with Juvenile Hallux Valgus Compared with Age-Matched Controls: A Cohort Investigation](#)

Outside Books:

- Green, DR., Mahan, KT., and Klimaz, TL (2013). Juvenile Hallux Abducto Valgus Deformity. In J.T. Southerland (4th Ed.), *McGlamry's Comprehensive Textbook of Foot and Ankle Surgery* (pp.332-342). Philadelphia, PA: Lippincott Williams & Wilkins.
- Butterworth, ML and Marcoux, JT (2020). Juvenile Hallux Abductovalgus. In M.L. Butterworth and J.T. Marcoux (1st Ed.), *The Pediatric Foot and Ankle: Diagnosis and Management*. (Chapter 7). Basel, Switzerland: Springer.

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